

AUG 09 2007 PATENT

PATENT APPLN. NO. 10/773,409
SUBMISSION UNDER 37 C.F.R. § 1.114

IN THE CLAIMS:

1. (currently amended) An indwelling catheter comprising:
a tube arranged in a longitudinal direction;
a female connector having a hollow form opened at its front and rear ends and being provided on a rear portion of the tube in a state of communicating with the rear portion,

wherein an opening taper portion tapered forwardly is formed in a longitudinal intermediate portion of an internal circumferential surface of the female connector; and

an elastically deformable hemostasis valve is provided longitudinally slidably in the opening taper portion of the female connector and an inside portion extending rearwardly from the opening taper portion,

the hemostasis valve being made of a single member and including:

a body having a hollow form opened at its front and rear ends, the body being elastically deformed in a radially inward direction by sliding forwardly in the opening taper portion, and also being urged rearwardly by resilient force due to said elastic deformation, wherein a front portion and a rear portion of the body are each formed as a large-diameter portion having a diameter

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larger than an inside diameter of a rear end of the opening taper portion; and

an openable/closable portion having a forwardly projecting tapered shape molded integrally with the front end of the body to close the front end opening of the body, the openable/closable portion having a front end portion to be opened in the radially outward direction by elastic deformation of the body in the radially inward direction.

2. (original) The indwelling catheter according to claim 1, wherein a connecting taper portion which is provided to extend successively rearwardly from the opening taper portion and to which a male connector is releasably connected is formed on an inner circumferential surface of the female connector, a taper ratio of the opening taper portion being made larger than a taper ratio of the connecting taper portion.

3. (original) The indwelling catheter according to claim 2, wherein the male connector is separably connected to a rear portion of the female connector.

4. (original) The indwelling catheter according to claim 1, wherein the female connector with its front portion projects forwardly from the tube.

5. (original) The indwelling catheter according to claim 2, wherein the hemostasis valve is pressable forwardly by the male connector.

6. (original) The indwelling catheter according to claim 2, wherein the body is elastically deformed in a radially inward direction by sliding forwardly in the opening taper portion during application of pressure by the male connector.

7. (original) The indwelling catheter according to claim 1, wherein an inner needle is removably inserted through the tube.

8. (currently amended) The indwelling catheter according to claim 7, wherein the openable/closable portion has a front end portion ~~to be opened~~ to be opened by being elastically deformed in a radially outward direction during application of pressure by the inner needle.

9. (original) The indwelling catheter according to claim 1, wherein the hemostasis valve has a duckbill-like shape.

10. (original) The indwelling catheter according to claim 1, wherein the hemostasis valve is made of a rubber elastic material.

11 - 19. (canceled)

20. (original) The indwelling catheter according to claim 1 further comprises a member having a male connector.

21. (canceled)

22. (original) The indwelling catheter according to claim 20 wherein the member comprises an inner needle, a needle hub and a male connector.

23. (canceled)

24. (original) The indwelling catheter according to claim 20 wherein the member having the male connector is a syringe.

25. (canceled)

26. (currently amended) An indwelling catheter comprising:
a tube arranged in a longitudinal direction;
a female connector having a hollow form opened at its front and rear ends and being provided on a rear portion of the tube in a state of communicating with the rear portion,

wherein an opening taper portion tapered forwardly is formed in a longitudinal intermediate portion of an internal circumferential surface of the female connector; and

an elastically deformable hemostasis valve is provided longitudinally slidably in the opening taper portion of the female connector and an inside portion extending rearwardly from the opening taper portion,

the hemostasis valve being made of a single member and including:

a body having a hollow form opened at its front and rear ends, the body being elastically deformed in a radially inward direction by sliding forwardly in the opening taper portion, and also being urged rearwardly by resilient force due to said elastic deformation, wherein a front portion and a rear portion of the body are each formed as a large-diameter portion having a diameter

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larger than an inside diameter of a rear end of the opening taper portion; and

an openable/closable portion having a forwardly projecting tapered shape molded integrally with the front end of the body to close the front end opening of the body, the openable/closable portion having a front end portion to be opened in the radially outward direction by elastic deformation of the body in the radially inward direction and not by pressing open the openable/closable portion.